

N-terminal truncated telomerase

CCCCTCCTTCCGCCAGGTGTCCTCCCTGAAGGAGCTCGTCGCCCGAGTGCTGCAGAGCCTGTGCGAGCGCGGGGGGGAAGAACGTGCTGGCCTTCGGCTTCGGCTGCTGGACGGGGCCCCG S F R Q V S C L K E L V A R V L Q R L C E R G A K H V L A F G F A L L D G A R G G P P E A P T T S V R S Y L P M T V T D A L R G S G A M G L L L R R V G D D V CONSTRUCTOR CONCENCION CONTROL OF THE CONTROL OF TH HASGPRRLGCERAWNES VRBAGVPLGLPAPGARRGGSA CAGCCCAAGTCTGCCCCTAGAGAGGCCCTAGGCGTGGCCCTTGAGCCGTGAGCCGAGGCCGGTGGACCGGAGGCCGTGGACCGAAGTGACCG SRSLPLPKRPRRGAAPEPERTPVGQGSWAHPGRTRGPSDR G P C V V S P A R P A E E A T S L E G A L S G T R E S E P S V G R Q E H A G P P TSRPPRPWDTPCPPVYAETKHFLYSSGDKEQLRPSFLLS ANTECCCCCCTGTTTCTGGAGCTGCTTGGGAACCACGCGCAGTGCCCCTACGGGTGCTCTTCAAGACGCACTGCCGGTCACCTGCGGTCACCCCCAGCAGCCGGTGTCTGTGCCCG M R P L P L B L L G N H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R GENERAL CECENCACE CECENCACA CONTRACTOR CONTR E K P Q G S V A A P Z Z Z D T D P R R L V Q L L R Q R S S P W Q V Y G P V R A C GACGTGGAAGATGAGCGTGCGGGACTGCGCTTGGCTGCGCAGGAGCCCAAGGTTGGCTGTGTTGTTCCGGCCCAAGAGCACCACGTTGCGTGAAGAAGATCCTGGCCAAGTTCCTGCACTGCCT T M K M S V R D C A W D R R S P G V D C V P A A E H R L R E E I L A R P L H M L GCTGAGCAAGCCTCCTGAGGGGGCTCTCTATTG_

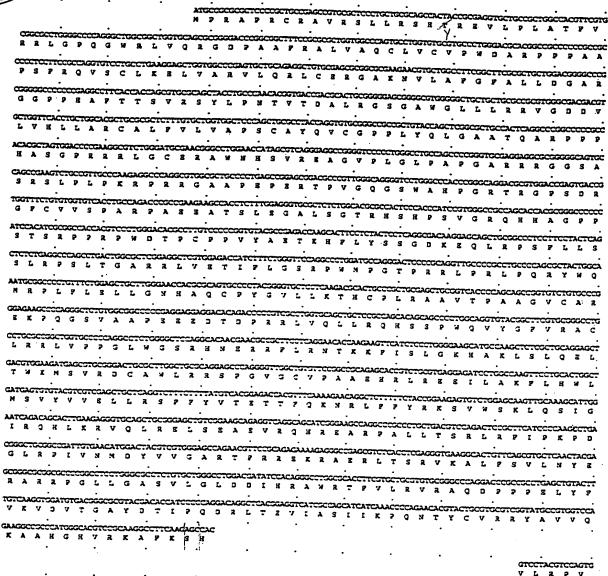


Truncated protein 1

M P R A P R C R A V R S L L R S H T R B V L P L A T P $\frac{1}{2}$ R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A CCCCTCCTTCCCCCAGGIGTCCTCCCTCAAGGAGCTGGTGCCCCGAGTGCTGCAGAGCCTGTGCGAGGGCGCGGAAGAACGTGCTGGCCTTCGGCTTCGGCTGCTGGACGGGCCCCG PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR ${\color{blue} \textbf{cossesses}} \textbf{cossesses} \textbf{coss$ G G P B A F T T S V R S Y L P S T V T D A L R G S G A W G L L R R V G D D ELLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP ACACGCTAGTGGACCCCGAAGGCGTCTGGGAACGGCCCTGGAACCATAGCGTCAGGGAGGCCGGGGTCCCCCTGGGCCTGCCAGGCCCGGGGGGAGGGCGGGGGGGAGGC EASGPRERLGCERANNESVENDENCE SRSLPLPKRPZZGAAPEPZZTPVGQGSWAHPGRTRGPSDR G P C V V S P A R P A E S A T S L B J A L S G T R S S H P S V G R Q H H A G P P STSRPPRPWDTPCPPYYAZTKHPLYSGDKZQLRPSPLLS CTCTCTGAGCCCCAGCCTGACTGGGGGCTCGGGGGGCCGAGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGGGACTCCCCGGAGGTTGCCCCGGCGCTGCCCGAGGTTACTGGCA S L R P S L T G A R R L V Z T I P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTICOGGCCCCTGTTTCTGGAGCTGCCTGGGAACCACGCGGAGTGCCCCTACGGGGTGACCCCAAGACCCCGGTGTCTGTGCCCG MRPLFLELL GNHAQCPYS715KTHCPLRAAVTPAAGVCAR LRRLVPPGLWGSRHNZZRFLZNTKKFISLGKHAKLSLQZL GACGTGGAAGATGAGCGTGCGGGACTGCGCTTGGCTGCGCAGGAGCCCAGGGGTTGGCTGTGTTGCGGCGAAGCACCGTCTGCGTGAGGAGATCCTGGCCAAGTTCCTGCACTGGCT I R Q H L K R V Q L R E L S S A S V R D H R E A R P A L L T S R L R P GTGGCTGTGGTTTAACTTCCTTTTTAACCAGAA AVLWFTFLFNQK COGCCTSCCCCCATTGTGAACATCGACTACGTCGTCGTCGGACCGAGAACGTTCGSCACAAAACAGGG L R P I V N N D Y V V G A R T P R R R R R AGGGCCGAGCGTCTCACCTCGAGGGTGAAGGCACTGTTCAGCGTGCTCAACTACGA

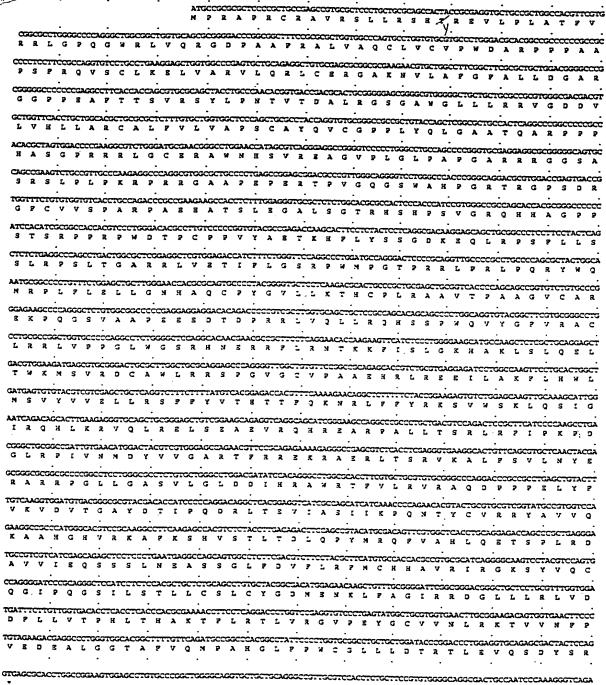


Truncated protein 2





Truncated protein 3





Altered C-terminus protein

ATTGCCGCGCGCTCCCCGCTGCCGCTCCCTTCCTGCGCCACTACCGCGAGGTGCTGCCGCCACGTTTCGTG PRAPRCZAVRSLLRSEXREVLPLATPV CONCENTRATION OF THE PROPERTY RRLGPQGWRLVQRGDPAAFRALVAQCLV CVPWDARPPPAA PSFRQVSCLKELVARVLQRLCERGAKHVLAFGPALLDGAR G G P P E A F T T S V R S Y L P N T V T D A L R G S G A M G L L R R V G D D LVELLARCAL PVLVAPSCAY QVCGPPLY QLGAAT QARPPP HASGPERELGCERAWNESTEERGVPLGLPAPGARRGGSA CAGCOCALGACTOCCCATTGCCCCAGGGCCCCAGGCCCTGCCCCCTGAGCCCGGAGCCCCGATTGGGCCAGGGCCCAGGCCCGAGGACCCGAGGACCCGAGTGACCGA SRSLPLPKRPRRGAAPZPZZTPVGQGSWARPGRTRGPSDR C V V S P A R P A R Z A T S L R G A L S G T R H S H P S V G R Q H H A G P STSRPPRPUDTPCPPVYAZTKZ7LYSSGDKZQLRPSPLLS CTCTCTGAGGCCCAGCCTGACTGGGGGCTCGGAGGCCCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGGACTCCCCGGCGGGTTGCCCCGGCTTACTGGCA L R P S L T G A R R L V S T I P L G S R P W M P G T P R R L P R L P Q R Y W Q M R P L P L B L L G N H A Q C P Y 3 V L L K T H C P L R A A V T P A A G V C A R NTROCOCCIOCTOGRACOCCICORGOCTICOGGOCTICOLOGICANCELLOCOCTICOTICOCALGANOCATOCCIAGOCTICOCTICOCTICOCALGOCTICOCACALGOCTICO CATCAGTOTOTACCTCCTCCTCCTCCTCCTCCTCTTTTTTATCTCACCCCCACCTCTTTTCTACCCCCAACAGTCTCTCCCAACCATTCCAACCATTCCAACCATTCCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAA IRQHLKRVQLRELSIAZVZQEZAZAZLLTSRLRFIPKPD ${\tt cosscrete} {\tt cosscrete}$ N N D Y V V G A Z T F Z Z Z X Z A Z Z L T S Z V K A L F S V L N Y Z RAZRPGLLGASVLGLDDIZZAWZTPVLRVZAQDPPPZLYP R'Y D V T G A Y D T I P Q D R L T E 7 I A S I I K P Q N T Y C V R R Y A V GANGGCCCCCATGGGCACGTCCGCAAGGCCCTTCAAGAGCCACGTCCTACCTTGACAGACCCTCCAGCCGTACATGGGCACAGTTCGTGGCTCACCTGCAGGAGACCAGCCGGCTGAGGGA K A A H G H V R K A F K S H V S T L T D L Q F Y M R Q F VAHLQETSPLRO TECCESTESTEATESAGEAGAGCTCCTCCCTGAATGAGGCCAGCAGTGGCCTCT CCAGGGGATCCCGCAGGGCTCCATCCTCCCACGCTGCTCCTGCCAGCCTGTGCTACCTGCTACATCCAGGAACAGCTGTTTCGGGGGACGGCTGCTGCTGCGTTTTGGTGGA Q G I F Q G S I L S T L L C S L C Y G D M E M K L F A G I R R D G L L R L V D TGATTTC-TTO-TGGTGACACCTCACCTCACCCCAACACCCTAACCTTCCTCAGGACCCTTGGTCCAGGTGACTAGGTGAACTTGCGGAAGACAGTGGTGAACTTCCC DPLLVTPHLTHAK TPL 2 7 2 7 7 2 Y F Z Y G C V V N L R K T V EDEALGGTAPVQMPAEGLF7WCGLLDTRTLEVQSDYSS CTATRICCESSACCTCCATCAGAGCCAGTCTCACCTTCAACCSCCGCTTCAAGCCTGGGAGGAACATGCGTCGCAAACTCTTTGGGGTCTTGCGGCTGAAGTGTCACAGCCTGTTTCTGGA Y A R T S I R A S L T F M R G F K A S A M M R R K L F G V L R L K C H S L F L D L Q V H S L Q T V C T H I Y K I L L L Q A Y R F H A C V L Q L P F H Q Q V W K N T P F L R V I S D T A S L C Y S I L R A K N A B CCCAAGAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC EENILVVTPAVLGS

G Q P R M R P P R R P S G V G S P P V S P G R G L G L *

JAN 2 1 2003 E

Protein that lacks motif A

ATGCCGCGCGCTCCCCGCTGCCGAGCCGTGCGCTCCCTGCTGCGCACCACTACCGCGAGGTGCTGCCGCCACGTTGGTG M P R A P R C R A V R S L L R S H X R B V L P L A T P V RRLGPQGWRLVQRGDPAAPRALVAQCLVCVPWDARPPPAA CCCCTCCTTCCCCCAGGTGTCCTGCCTGAAGGAGCTGGTGCCCGAGTGCTTCCAGAGGCTGTGCGAGGGCGGGGGGGAGAAGAAGGTGCTGGCCTTCGGCTTGGGACGGGGGCGG PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR G G P P E A F T T S V R S Y L P M T V T D A L R G S G A W G L L R R V G D D V LVRLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARP ASGPRERLGCERAWNESTREAGVPLGLPAPGARRGGS S R S L P L P K R P R R G A A P E P E R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A E E A T S L E G A L S G T R H S H P S V G R Q H H A G P P T S R P P R P M D T P C P P V Y A Z T K H P L Y S S G D K E Q L R P S P L L S CTCTCTGAGGCCCAGCCTGACTGGCGCCTCGTGGAGACCATCTTTCTGGGTTCCAGGCCCTTGGATGCCAGGACTCCCGGAGGTTGCCCCGGAGGCTGCCCCAGGCTACTGGCA L R P S L T G A R R L V E T I P L G S 2 P W M P G T P R R L P Q R Y E R P Q G S V A A P E Z E D T D P R R L V Q L L R Q R S S P W Q V Y G F V R A C N K M S V R D C A N L R R S P G V D C V P A A S H R L R B E I L A K F L H N L CATCACTGTGTACGTCGTCGACGACGTCTTTTATGTCACCGACGACCACGTTTTCAAAAGAACACGCTCTTTTTCTACCGGAAGAGGTGTCTGGAGCAAGTTGCAAAGCATTGG
M S V Y V V Z L L R S F F Y V T Z T T F Q K N R L F F Y R K S V W S K L Q S I G ANTERGRACIACTITICAGACTOTOCOCOCICOCOCOCOCAGACTOTOCOCAGACTOCOCAGACTOCOCAGACTOCOCAGACTOCOCAGACTOCOCAGACTOCOCAGACT RQHLRAVQLASISSASVAJHASAAPALITSRLAFIPKP CGGGCTCCGGCCGATTGTGAACATGGACTACGTCGTGGGGGCCAGAACGTTTCGGCAGAAAAGAGGGCCCGAGCGTCTCACCTCGAGGGTGAAGGCACTGTTCAGCGTGCTCAACTACGA GCGGGCGCGCCCCGGCCTCCTGGGCCCCCTCTGTGCTGGGCCTAACCATATCCAACAGGCCTGGCGCAACTGTGCTGGCGGCCCAGGACCCGCCTGAACTGTACTT RARRPGLLGASVLGLODIHRAWATEVLRVAAQOPPPEL TGTCAAG D R L T E'V I A S I I K P Q N T Y C V R R Y A V V Q каансичка рквичето горочня дечань од теретер TECCSTCGTCATCGAGCAGAGCTCCTCCCTGAATGAGGCCAGCAGTGGCCTCT TEGACITETTECTACICTTCATGTGCCACCACCGCGGCATCAGGGCAAGTCCTACGTCCAGG A V V L E Q S S S L M E A S S G L ? Э V ? L R ? M C H H A V R L R G K S Y V Q C CENGGGATCCCCCAGGGCTCCATCCTCTCCACCCCTGCTGCCAGCCTGTGCTACGGGACAACAAGAACAAGCTGTTTGCGGGGATTCGGGGGGACGGGCTGCTCCTGCGG Q G I P Q G S I L S T L L C S L C Y G D M E M K L F A G I R R D G L L R L V D P L L V T P H L T H A K T P L R T L V R G V P B Y G C V V N L R K T TOTAGAAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCCACGGCCTTATTCCCCTGGTGCGGCCTGCTGGATACCCGGACCCCTGGAGGGTGCAGAGCGACTACT B D B A L G G T A P V Q M P A H G L P P W C G L L D T R T L B V Q S D Y PTPPLRVISDTASLCYSILKAKNAGMSLGAKGAAGPLPSE GGCCGTGCAGT3GCT3TGCCAAGCATTCCTGCTGAAGCTGACTCGACACCGTGTCACCTACGTGCCAACTCCTGGGGTCACTCAGGACAGCCCAGACGCAGCTGAGTGGGAAGCTCCC A V Q W L C H Q A F L L K L T R H R V T Y V P L L G S L R T A Q T Q L S R K L GNCTGTCCCCCTGACCCTGACCGACTGTCCACCCAAGGCCTGAGTGTCCAACACACCCTGCCGTCTTCACTTCCCCACAGCCTGCACCCTGCACTCCAACGCCTACACCC GGACCCTGGGAGCTCTGGGAATTTGGAGTGACCAAAGGTGTGCCCTGTACACAGGCGAGGACCCTGCACCTGGATGGGGGTCCCTGTGGGTCAAATTGGGGGGAGGTGCTGTGGGAGTAA AATACTGAATATATGAGTTTTTCAGTTTTGA



Truncated protein that lacks motif A

MPRAPRCRAVES LLESEN, REVLPLATP R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A PSPRQVSCLKELVARVLQRLCERGAKNVLAPGPALLDGAR G G P P B A F T T S V R S Y L P N T V T D A L R G S G A W G L L R R V G D D V GETGGTTCACCTGCTGGCACGCTGCTGCTGCTGGTGGCTCCCAGCTGCCCCCAGCTGTGCGGGCCGCCGGTGTACCAGCTCGGCGCTGCCACTCAGGCCCGGCCCCCGCC L V H L L A R C A L F V L V A P S C A Y Q V C G P P L Y Q L G A A T Q A R P P P HASGPRRLGCERAWNHSVREAGVPLGLPAPGARRGGSA S R S L P L P K R P R R G A A P Z P E R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A E E A T S L E G A L S G T R E S E P S V G R Q E H A G P P ATTCCMCATTCCCGCCACCACGTCCCTGGGACACGCCTTGTCCCCCGGTGTACGCCGACACCCAAGCACTTCCTTACTCCTCAGGCGACAAGGAGCAGCTGCGGCCCTCCTTACTCAG STSRPPRPWDTPCPPVYAZTKH?LYSSGDKEQLRPSPLLS AATGGGGCCCCTGTTTCTGGAGCTGCTTGGGAACCACGCGCAGTGCCCCTACGGGGTGCTCTCAAGACGCACTGCCGGTGAGCTGCGGTCACCCCAGCAGCCGGTGTCTGTGCCGG M R P L P L E L L G N H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R B K P Q G S V A A P E E E D T D P R R L V Q L L R Q H S S P W Q V Y G P V R A C ${\tt cct}{\tt ccc}{\tt cccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt cccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt cccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt ccc}{\tt cccc}{\tt ccc}{\tt ccc}{\tt$ L R R L V P P G L M G S R H N B R R P L R N T K K P I S L G K H A K L S L Q E L T R Q H L K R V Q L R Z L S Z A S V R D H R R P A L L T S R L R P I P K P ${\tt accedence} {\tt accedence}$ ${\tt cacadeteaces} {\tt cacadeteateaces} {\tt cacadeteaces} {$ D R L T B V I A S I I K P Q N T Y C V R R Y A V V Q GAAGGCCGCCCATGGGCACGTCCGCAAGGCCTTCAAGAGCCACGTCTTAACACACGTCCAGGCGGTACATGCGACAGTTCGTGGCTCACCTGCAGGAGACCAGCCCGCTGAGGGA K A A H G H V R K A P K S H V S T L T D L Q P Y M R Q P V A H L Q S T S P L R D CCAGGGGATCCCGCAGGGCTCCATCCTCTCCACGCTGCTCTCCCAGCCTGTGCTACGCCGACAACAACAAGCTGTTTGCGGGGATTCGGCGGAACGGGCTGCTCCTGCGTTTTGGTGGA Q G I P Q G S I L S T L L C S L C Y J D N E N K L F A G I R R D G L L R L V D TGATTTCTTGTTGACACCTCACCTCACCCACCCGAAAACCTTCCTCAGGACCCTCGGTCCGAGGTGTCCCTGAGTATGGCTGGGTGAACTTGCGGAAGACAGTGGTGAACTTCCC D F L L V T P H L T H A K T P L R T L V R G V P S Y G C V V N L R K T V V N F EDEALGGTAFVQNPARGLFPWCGLLDTRTLZVQSDYS GTGAGCGCACCTGGCCGGAAGTGGAGCCTGTGCCCCGGCTGGGGCAGGTGCTGCTGCGGCGCGCGTTGCGTCCACCTGTGCTGCGGGCAGCGGCAACTGCCAAAGGGTCAGA

TO THE PROPERTY OF THE PROPERT



Lacks motif A and altered C-terminus

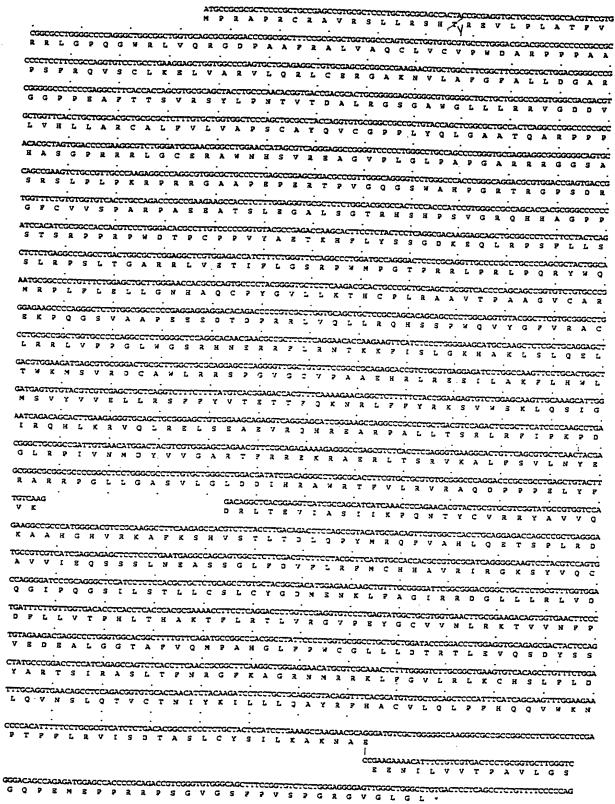


FIG. 11K



N-terminal truncated telomerase (ver. 2)

wire consequence and consequen MPRAPRORAVESLLRSHZAREVLPLATY coeccercesR R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A GECCTCCCCGGGTCCGCGTCCGCCTGGGGTTGAGGCCGGCGGGAACCAGCGACATGCGGAGAGCAGCGCAACTCAGGGCGACTCAGGCCGCTTCCCCCGCAGGG G L P G V G V R L G L R A A G G M Q R H A E S S A G D S G R P P R R A S P G S A S G W G * G R P G G T S D M R R A A Q A T Q G A S P A G P P R G R R P A G V E G G R G E P A T C G E Q R R L R A L P P Q S P R Q V S C L K B L V A R V L Q R L C E R G A K H V L A F G P A L L D G A R G P P E A F T T S V R S Y L P M T V T D A L R G S G A W G L L R R V G D D GETGGTTCACCTGCTGGCGCGCTCTTTTGTGCTGGTGGCTCCCAGCTTGCCCTACCAGGTGTGCGGCCCGCTGTACCAGCTCGGCGCTGCCACTCAGGCCCGGCCCCCGCC LVHLLARCAL PVLVAPSCAYQVCGPPLYQLGAATQARPP HASGPREL GCRANNES VERY GLPAPGARREGGSA S R S L P L P K R P R R G A A P R P R R T P V G Q G S W A H P G R T R G P S D R TO STATE TPCVV SPARPAEEATS LEGALS GTRHSHPSV GRQHHAG PP T S R P P R P W D T P C P P V Y A S T K H F L Y S S G D K E Q L R P S P L L S CTCTCTGAGGCCCAGCCTGACTGGCGCCCCGGAGGCTCCTGGAGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGGGACTCCCCGCAGGTTGCCCCGGCGCCTACTGGCA S L R P S L T G A R R L V S T I F L G S R P W M P G T P R R L P R L P Q R Y W Q LRRLVPPGLWGSRHNSRRFLRNTKKFISLGKHAKLSLQEL GACGTGGAAGATGAGCGTGCGGGACTGCGCT TOGETGCSCAGGACCCAGGGCTTTGCCTGTTTTCCCGCCCCAGAGCACCCTCTGCGTGAGGAGATCCTGGCCAAGTTCCTGCACTGCACTGCC TWKMSVRDCAWLRRSPGVJCVPAAEHRLREEILAKFLH chrosorogae corrected coGCTGAGCAAGCCTCCTGAGGGGGCTCTCTATTG_



Truncated protein 1 (ver. 2)

RAPRCZAVRSLLRSHTREVLPLATFV coccentrate consideration coR R L G P Q G W R L V Q R G D P A A F R A L V A Q C L V C V P W D A R P P P A A ${\tt coccrected coccre$ GLPGVGVRLGLRAAGGNQRHAESSAGDSGRPPRR ASPGSASGWG•GRPGGTSDMRRAAQATQGASPAG PPRGRRPAGVEGGZGEPATCGEQRRRLRALPPQ CCCCTCCTTCCCCCACGTGTCCTGCCTGAAGGAGCTGGTGGCCCGAAGTGCTGCACACGCCTGTCCGACGCCCGGCCGAAGAACGTGCTGGCCTTCGCCTTCGCGCTGCTGGACGGGCCCCG PS FRQ V S C L K E L V A R V L Q R L C B R G A K N V L A F G F A L L D G A R G G P P B A F T T S V R S Y L P N T V T D A L R G S G A H G L L R R V G D D V LVHLLARCALPVLVAPSCAYQVCGPPLYQLGAATQARPPP HASGPRRLGCERANNES 7 REAGVPLGLPAPGARRGGSA $\tt case construction of the construction of t$ S R S L P L P K R P R R G A A P B P B R T P V G Q G S W A H P G R T R G P S D R CTCTCTGAGGCCCAGCCTGACTGGCGCTCGGAGGCCCCAGGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGGGACTCCCGGCAGGTTGCCCGGCCTGCCCCAGCGCTACTGGCA L R P S L T G A R R L V S T I P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTGCCCCCCTGTTTCTGCAGCTGCTTGGGAACCACCGCCTACCCCCTACCGGGTCCTCCTCAGACACCGCACCTGCCGAGCTCCCCCAGCAGCCCGGTGTCTGTGCCCG M R P L F L E L L G M H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R GACGTGGAAGATGAGCGTGCGGACTGCGCTTGGCTGCGCAGGAGCCCCAGGGGTTGCCTGTGCGCGCAGAGCACCTGCGTGAGGAGATCCTGGCCAAGTTCCTGCACTGGC W K M S V R D C A W L R R S P G V S C V P A A S H R L R S E I L A K P L H W L ANTENDALACIOSTICADACTICOSOTICADACTICADACTICOSOTICADACTICOSOTICADACTICOSOTICADACTICOSOTICADACTICADACTICOSOTICADACTICOSTICADACTICOSOTICAD TRQHLKRVQLRELSEAEVRQEREARPALLTSRLRP GTGGCTGTGCTTTGGTTTAACTTCCTTTTTAACCAGAA

TFLFNQK

G L R P I V N M D Y V V G A R T P R R Z K R P S V S P R G



Truncated protein 2 (ver. 2)

M P R A P R C R A V R S L L R S H X R E V L P L A T P V CONCENTRATION OF THE PROPERTY R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A LPGVGVRLGLRAAGGNQRHAESSAGDSGRPPR SPGSASGWG * GRPGGTSDMRRAAQATQGASPA PRGRRAGVEGERATCGEQRRRLRALPP CCCCTCCTTCCCCCACGTGTCCTTCCTGAAGGACCTGGTGGCCCCGAATGCTGCAAGACCTGTCCGACGCCGCAAAAAACGTCCTGGCCTTCGGCTTCGGCTGGACGGGCCCG PSPRQVSCLRBLVARVLQRLCERGAKHVLAPGFALLDGAR $\tt cossescence accordence accord$ G G P P E A F T T S V R S Y L P M T V T D A L R G S G A W G L L R R Y G D D V LVHLLARCALPVLVAPSCATQVCGPPLYQLGAATQARPPP HASGPRRLGCERAWN HS72BAGVPLGLPAPGARRGGSA S R S L P L P K R P R R G A A P B P B R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A Z E A T S L B G A L S G T R E S H P S V G R Q H H A G P P T S R P P 2 P W D T P C P P V Y A 2 T X H P L Y S S G D K R Q L R P S P L L S GENCANGECCENGGECTCTGTGGCCGCCCCCCGNGGAGGACACACACACCCCCCGTTGGTGCGCCTGCCCAGCACACCCCCTGGCAGGTGTACGGCTTGGTGGGGGCCTG E K P Q G S V A A P E E E D T D P R R L V Q L L R Q H S S P W Q V Y G F V R A C I R Q H L K R V Q L R E L S E A E V R Q H R E A R P A L L T S R L R ? I P K P CGGGCTGCGGCCGATTGTGAACATGGACTACGTCGTCGGGGGCCAGAACGTTC SCICIACIANAACACCCCCCACCCTCTCACCTCGACCGTGAACGCACTGTTCACCGTGCTCAACTACGA G L R P I V N M D Y V V G A R T F R R Z K R A Z R L T S R V K A L P S V L N Y Z RARRGLLGASVLGLDDIBRAWRTFVLRVRAQDP GAAGGCCCCCCATGGGCACGTCCCCCAAGGCCTTCAAGAGCCAC K A A H G H V R K A F K S H GTCCTACGTCCAGTG VLRPV



Truncated protein 3 (ver. 2)

M P R A P R C R A V R S L L R S H R E V L P L A T P coccectroscocctoscoccRRLGPQGWRLVQRGDPAAFRALVAQCLVCVPWDARPPPAA L P G V G V R L G L R A A G G N Q R H A B S S A G D S G R P L S P G S A S G W G * G R P G G T S D M R R A A Q A T Q G A S P P R G R P A G V E G G R G B P A T C G E Q R R R L R A L CCCTCCTTCCCCAGGTGTCCTGCCTGAAGGAGCTGGTGGCCCGAAGTGCTGCAGGCCTGTGCGAAGGACGTGCTGGCCTTCGGCTTCGCGCTGGAGGGGGGCCCG PSPRQVSCLKELVARVLQRLCERGAKNVLAFGPALLDG LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPP HASGPRARL GCERANNHS7REAGVPLGLPAPGARRGGSA R S L P L P K R P R R G A A P E P E R T P V G Q G S W A H P G R T R G P S D R S P A R 7 A E S A T S L E G A L S G T R H S H 7 S V G R Q H H A G P AATOCCCCCCTGTTTCTGGAGCTGCTTGGGAACCACGCGGAGTGCCCCTACGGGGTGCTCTCTGAGACGCACTGCCGGAGCTGCGGAGCTGCGGAGCCGGTGTCTGTGCCCG $\frac{1}{2}$ Z K P Q G S V A A P Z S Z D T D P R R L V Q L L R Q H S S P W Q V Y G F V R A C GACGTGGAAGATGAGCGTGCGGGACTGCGGCTTGGCTGCGCAAGGCCCAGGGGTTTGGC T W K M S V R D C A W L R R S P G V G C V P A A Z H R L R Z E I L A K F L H W L M S V Y V V E L L R S P P Y V T E T T P Q X N R L P F Y R K S V W S X L Q S I G ANTEXAGLEGENETTANGAGGGTGENGETGEGGANGETGTGGGANGENGAGGTCNGGCNGGCNGGCNGGCCGGGCCTGCTGAGGTCCNGACTCCGGCTTCATCCCCAAGGCTGA I R Q H L K R V Q L R E L S E A E V R Q E A E A R A L L T S R L R F I P K P G L R P I V N M D Y V V G A R T F R R E K R A E R L T S R V K A L F S V L N GCGGGCGCGCGCCCCGGCCTCCTGGGCCTGGGCCTGGACGATATCCAACGGCCTTGGCGAACCTTCGTGCTGCTGTGTGCGGCCCAGGACCCGGCCGCCTGAGCTGTACT RARROGLLGASVLGLDDIERAWRTFVLRVRAQDPPPELYF V X V D V T G A Y D T L P Q D A L T Z V L A S L L X P Q N T Y C V R R Y A V V Q K A A H G H V R K A F K S H V S T L T D L Q P Y M R Q F V A H L Q E T S P TGCCGTCGTCATCCAGCAGCTCCTCCCTGAATGAGGCCAGCAGTGGCCTCTTCCACGTTCCTACGCTTCATGTGCCACCACGCCGTGCGCATCAGGGCGAAGTCCTACGTCCAGTG A V V I E Q S S S L N E A S S G L 7 D V 7 L R F M C H H A V R I R G K S Y V CCAGGGGATCCCGCCAGGGTCCATCCTCTCCAGGCTGCTCTGCAGCCTGTTCCTAGGCGAACAAGCAGTTTTGCGGGGATTCGGGGGACGGGCTGCTCCTGCGTTTGGTGGA V E D E A L G G T A ? V Q M P A H G L ? P H C G L L L D T R T L E V Q S D Y S TGCCACAGGGTGCCCCTCGTCCCATCTGGGGGCTGAGCACAAATGCATCTTTCTGTGCGAGTGCGTGACAGCAGCAGCAGCAGTTTTCTGTGCTATTTTTGGTAAL



Altered C-terminus protein (ver. 2)

MPRAPRCZAVRSLLRSHYRBULPLATP coexecutes coexecuteRRLGPQGWRLV Q R G D P A A P R A L .V A Q C L V C V P M D A R P P P A A GECCTECCCGGGGTCGGCGTCGGGCTTGAGGGCGGGCGGGGGGAACCAGCGACATGCGGAGAGCAGCGGAACTCAGGGGACTTCCCCCGGAAGTG L P G V G V R L G L R A A G G N Q R H A E S S A G D S G R P P R R A S P G S A S G W G * G R P G G T S D N R R A A Q A T Q G A S P A C P P R G R R P A G V E G J Z G E P A T C G E Q R R L R A L P P Q PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR G G ? P E A P T T S V R S Y L P N T V T D A L R G S G A W G L L R R V G D D V GETGGT TEACETGCEACGCTGCTGCGCGCTTTTTGTGCTGGTGCCTCCCAGCTGCCCCTACCAGGTGTGCGGCGCTGTACCAGGTGGGGGTGCCACTCAGGCCGGGCCCCCGCC H L L A R C A L F V L V A P S C A Y Q V C G P P L Y Q L G A A T Q A R ACACGCTAGTGGACCCCGAAGCCGTCTGGGATGCGAACCGGCCTGGAACCATAGCGTCAGGAGGCCGGGGTCCCCTTGGGCCTGCCAGCCCCGGGTGCGAGGAGGACGCCGGGGCAACCA HASGPRRLGCBRAWNHSVRBAGVPLGLPAPGARRGGSA SRSLPLPKRPRRGAAPEPEZTPVGQGSWAHPGRTRGPSDR G F C V V S P A R P A B Z A T S L E G A L S G T R H S H P S V G R Q H H A G P CTCTCTGACCCCAGCCTGACTGGCCCTCGCGCGCTCGTGGAGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCCGCGAGGTTGCCCCGCGGCTGCCCGCAGCTACTGGCA S L R P S L T G A R A L V S T L P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTICOGCOCCOCTOTTTCTGGAGCTGCTTGGGAACCACSCGGAGTGCCCCTACSGGGTSCTCCTCAAGACGCACTGCCGGTGAGCTGCCGAGCTGCCCGAGCCGGGTGTCTGTGCCCG EKPQGSVAAPSEEDTDPRRL/QLLRQHSS?WQVYG?VRAC GATGAGTGTGCGTCGGGGGGCTCCTCAGGTCTTTCTTTATGTCACGGGAGCCCCCTTTCAAAGGACAGGGCTCTTTTCTACCGGAAGAGTGTCTCGAGCAAGTTGCAAAGCATTGG I A Q H L K R V Q L R E L S E A E V R Q H R E A R P A L L T S R L R F G L R P I V N M D Y V V G A R T P R R R R R R R R R V K A L P S V L N $\frac{1}{2}$ G L L G A S V L G L D D I H R A W R T P V L R V R A Q D P P P E L Y F K V D V T G A Y D T I P Q D R L T E V : A S I I K P Q N T Y C V R R Y A V V Q GAAGGCCGCCCATGGGCACGTCCGCAAGGCCTTCAAGACCCACGTCTCTACCTTGACAGACCCCTTACATGCGACAGTTCGTGGCTCACCTGCAGGAGACCCAGCCGGCTGAGGGA K A A H G H V R K A F K S H V S T L T D L Q P Y M R Q F V A H L Q E T S P L R D TGCCGTCGTCATCCAGCAGCTCCTCCCTGAATGAGCCAGCAGTGGCCTCTTCGACGTCTTCTTACGCTTCATGTGCCACCAGGCGTGCGCATCAGGGCAAGTCCTACGTCCAGTG VIEQSSSLNEASSGLPD7FLRPMCHHAVRIRGKSY CCAGGGATCCCGCAGGGCTCCATCCTCCCACGCTGCTCTGCAGCCTGTGCTACGGCTACATGGAGAACAAGCTGTTTGCGGGGATTCGGCGGACGGGCTGCTCCTGCGTTTGGTGGA TOTAGRAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCCACGGCCCTATTCCCCTGGTGCGGCGTGCTGGTGCTGGATACCCGGACGTGCAGAGGGACTACTCCAG V E D 8 A L G G T A 7 V Q M 7 A H G L 7 7 M C G L L D T R T L B V Q S D Y S S TTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGATCCTCCTGCTGCAGGCGTACAGGTTTCACGCATGTGTGCTGCAGCTCCCATTTCATCAGCAAGTTTGGAAGAA г о лизгодля слиглигт туулявну слготывно олики T F F L R V I S D T A S L C Y S I L R A R N A S CCGAAGAAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC BENILVVTPAVLGS GGGACAGCCAGAGATGGAGCCACCCCGCAGACCGTCGGGGTGTGGGGCAGCTTTCCGGTGTCT CTCCGACCCCCACTTSCCCTCCCCCCTGTGACTCCTCACCCTCTGTTTTCCCCCCAC

PEMEPPRRPSGVGSPPVSPGRGVGLGL



Protein that lacks motif A (ver. 2)

MPRAPECZAVESLLRSHTREVLPLATE RRLGPQGWRLVQ2GDPAAF2ALVAQCLVCVP WDARPPPAA G L P G V G V R L G L R A A G G N Q R H A B S S A G D S G R P A S P G S A S G W G * G R P G G T S D M R R A A Q A T Q G A S G W G * G Z ? G G T S D M R R A A Q A T Q G A S P ; A G V B G G Z G B P A T C G B Q R Z R L R A L P P PRGRRP CCCCTCCTTCCCCCAGGTGTCCTCCCTGAAGGAGCTGGTGGCCCGAGTGCTGCAGAGGCCTGTGCGAGCGCGGGGGGGAAGAACGTGCTGGCCTTCGGCTTGGGGTGGACGGGGGCCGG PS FRQ V S C L K B L V A R V L Q R L C B R G A K N V L A F G F A L L D G A R G G P P E A F T T S V R S Y L P N T V T D A L R G S G A W G L L R R V G D D V LVHLLARCALFVLVAPSCATQVCGPPLYQLGAATQARPPP HASGPRREGCERAWNESVREAGVPLGLPAPGARRGGSA S R S L P L P K R P R R G A A P E P E R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A B B A T S L B J A L S G T R H S H P S V G R Q H H A G P CONCANDECTE TO CONCENTRATION OF THE PROPERTY O PPGLWGSRHNZRRFLRNTKKFISLGKHAKLSLQEL CACCTCGAAGATCACCCTCCCCCTCCCCCTCCCCCACGAGCCCCACGCCCTCCCCCCACGAGCACCCCCCCACGAGGAGATCCTCCCCCAAGTTCCTGCACTCCCCCACGCCTACTTCCTGCACTCCCCCCACGCCTACTTCCTGCACGAGGAGATCCTGCCCAAGTTCCTGCACTCCCCTACGCCTACGTCCCCAAGTTCCTGCACTCCCCCAAGTTCCTGCACGAGGAGATCCTGCCCAAGTTCCTGCACTCCCCCAAGTTCCTGCACGAGGAGATCCTGCCCAAGTTCCTGCACTCCCCTACACGAGGAGATCCTGCCCAAGTTCCTGCACTCCCCTACACGAGAACATCCTGCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCCAAGTTCCTGCACTCCCAAGTTCCTGCACTCCCAAGTTCCTGCACTACTCCTGCACTCCCCAAGTTCCTGCACTCCCAAGTTCCTGCACTCCCAAGTTCCTGCACTCCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCCAAGTTCCTGCACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTCAAGTTCCTGACTAAGTTCCTGACTCAAGTTCA RQHLKRVQLRZLSSABVZZZZARPALLTSRLRFIPKP COGGCTGCCCCCATTGTGAACATGGACTACGTCGTCCGAGCCACAACGTTCCCCCAGGAAAAGAGGCCCGAGCGTCTCACCTCCAGGGTGAAGGCACTGTTCAGCGTGCTCAACTACGA TGTCAAG ĸ D R L T Z V I A S I I K P Q N T Y C V R R Y A R A A H G H V R K A P K S H V S T L T D L Q P Y M R Q P V A H L Q S T S P L R D TOCCOTCOTCATCGAGCAGCAGCATCCCCTGAATGAGGCCAGCAGTGGCCTCTTCGACGTTTCTACGCTTCATGTGCCACCACGCCGTGGGCATCAGGGGCAAGTCCTACGTCCAGTG A V V I B Q S S S L H Z A S S G L ? D V ? L A P M C H H A V R I R G K S Y V Q C Q G I P Q G S I L S T L L C S L C Y G D M 3 N K L F A G I R R D G L L R L V D D F L L V T P B L T H A K T F L R T L 7 R G V P B Y G C V V N L R K T V г олигголиглягтгэ улавнуслгогый одинки T P P L R V I S D T A S L C Y S I L K A K N A G M S L G A K G A A G P L P S E T T L T A L E A A A N P A L P S D 7 X T I L D כדפדיבאכיביבסטבידיבואכיביבסטביבאביבסטביבטביביבאביביבאביביבאביביבאביביבאביביבאביביבאביביבאביביבאביביבאביביבאביב $\textbf{characterescence} \textbf{characterescence} \textbf{ch$

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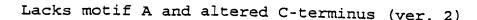
FIG. 11U



Truncated protein that lacks motif A (ver. 2)

ATOCCGCGCGCTCCCCCCCCCCAACCCGTGCGCTTCCCTGCTGCGCAACCTACCGCGAAGGTGCTGCCGACGTTCGTG M P 2 A P R C 2 A V R S L L R S H R R E V L P L A T P R R L G P Q G W R L V Q R G D P A A P 2 A L V A Q C L V C V P W D A R P P P A A GECCTCCCCGGGTCCGCGTCCGGCTTGAGGCCCCCGGGGAACCAGCGACATGCGGAGAGCAGCGCGACTCAGGCGACTTCCCCCGCAGGTG CCCCTCCTTCCCCCAGGGGCCCCCAAGGACCTGGGGCCCCGAGGGCTGCTGCAAGGCCTGGCGGCGGAAGAACGTGCTGCCCTTCGGCTTCGGCTTGGACGGGCCCG S F R Q V S C L X E L V A R V L Q R L C E R G A K M V L A F G F A L L D G A R G G P P E A P T T S V R S Y L P N T V T D A L R G S G A N G L L R R V G D D LVHLLARCAL PVLVAPSCAYQVCGPPLYQLGAATQARP EASGPRRELGCERANNESTRAGOPLGLPAPGARRGGSA CAGCCGAAGTCTGCCCAAGAGGCCCCAGGCGTGGCCCTTGACCCGTGACCGGGACGCCGTTGGGCAGGGGTCCTGGGCCACCCGGGCAGGACGGAGTGACCGAGTGACCG SRSLPLPKRPRRGAAPEPEZTPVGQGSWAHPGRTRGPSDR STSRPPRPWDTPCPPVYABTKEFLYSSGDKEQLRPSPLL $\tt ctctctdaggcccagccttdactogcgctcgdaggccatcattgaggccatcattgaggccatggaggactccccaggttgccccagcttgccccagcsttactgcattgccaggattgcccaggttgccccagcttactccaggattactcccaggattgccaggattgccaggattgccaggattactccag$ S L R P S L T G A R R L V B T I P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTICOSCCCCTGTTTCTGGAGCTGCTTGGGAACCACGCGCAGTGCCCCTTACGGGGTSCTCTCAAGACGCACTGCCGGTGAGCTGCGGTCACCCCGAGCAGCCGGTGTCTGTGCCCG MRPLFLEL GNHAQCPYS755XTHCPLRAAVTPAAGVCAR GENCANGCCCCNGCGCTCTGTGGCGGCCCCCGAGGAGGAGACACACACCCCCCGTCGCTTGGTGAGCTGCTCCGCCAGCACACCACCCCCTTGGCAGGTGTACGGCTTCGTGCGGGGCTTG EKPQGSVAAPEESDTDPRRLYQLLRQHSSPWQVYGFVRAC TOTOCOCCOGCTOGTOCCCCCAGGCCTCTGGGGCTCCAGGCACAACTAACTCCCTCAGGAACACCAAGGAGTTCATCTCCCTGGGGAAGCATGCCAAGCTCTCGCTGCAGGAGCT L R R L V P P G L W G S R H N Z R R F L R M T K K P I S L G K H A K L S L Q E L $\frac{1}{2}$ T N R N S V R D C A W L R R S P D V D C V P A A E R L R E E I L A K F L H W ANTENGACAGEACTTGANGAGGGTGCAGCTGCGGGAGCTGTCGGAAGCAGGAGGTCAGCACAGCATGCAGAAGCCAGGCCGGGCCTGATGACGTCCAGCTTCATCCCCAAGCTTGA IR Q H L K R 7 Q L R E L S E A Z 7 R Q H Z K R P A L L T S R L R F I P COGGCTGCCCCATTGTGAACATGGACTACGTCGTGGGGCCAGAACGTTCCTGCAGAAAAAGAGGGCCGGGGGTCTCACCTGGAGGGTGAAGGCACTGTTCAGCGTGCTCAACTACGA G L R P I V N M D Y V V G A R T F R R S X R A E R L T S R V K A L F S V L N Y S TGTCAAG DRLTZVIASIIKPQNTYCVRRYAV CANGGEGGECEATGGGCACGTCCGCAAGGCCTTCAAGAGCCACGTCTCTACCTTGACAGACCTTCAGGCGTACATGCGACAGTTCGTGGCTCACCTGCAGGAGACCAGCCCGGCTGAGGGAK A A H G H V R A P K S H V S T L T D L D P Y H R Q P V A H L Q E T S P L R Dceasessates cases creates a constructive and constructive and constructive and a constructive and construcQ G I P Q G S I L S T L L C S L C Y G D N S N K L F A G I R R D G L L R L V TGTAGAAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCCACGCCCTATTCCCTGGTGCGGCCTGCTGGATACCCGGACCCCTGGAGGTGCAGAGCGACTACTCCAG E D E A L G G T A P V Q M P A R G L P P M C G L L D T R T L E V Q S D Y S GTGAGCGCACCTGGCCGGAAGTGGAGCCTGTGCCCCGGCTGGGGCAGGTGCTGCTGCCGACCGCCGATTCCGTTCCGTTGCGGGCAGGGGAACTGCCAATCCCAAAGGGTCAGA TGCCACAGGGTGCCCCTCGTCCCCATCTCGGGCTGAGCACAAATGCATCTTTCTGTGCAGTGAGGGGGGGCTCCCTCACAACGGGAGCAGTTTTCTGTGCTATTTTGGTAA

FIG. 11V





ATGCCGCGCGCTCCCCCCCTGCCGAGCCGTGCGCTCCCTGCTGCTGCGCAACCTACCGCGAAGGTGCTGCGGCAACGTTCGTG RAPRCRAVRSLLRSHTREVLPLATF RRLGPQGWRLVQRGD?AAFRALVAQCLVCVP WDARPPPAA L P G V G V R L G L R A A G G M Q R H A B S S A G D S G R P P R R A S P G S A S G W G * G R P G G T S D M R R A A Q A T Q G A S P A G P P R G R R P A G V Z G G R G E P A T C G E Q R R L R A L P P Q CCCCTCCTTCCCCCAGGTGTCCTGCAGGAGCTGGTGCCCCAGTGCTGCAGAGCCTGTGCGAGGGCGGGGAAGAACGTGCTGCCTTCGGCTTCGGCTTCGGCTGCAGGGGCCCG PSFRQVSCLKELVARVLQRLCERGARNVLAPGFALLDGAR G G P P E A F T T S V R S Y L P N T V T D A L R G S G A M G L L R R V G D D LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP HASGPRRALGCERAWNHSVRZAGVPLGLPAPGARRZGGSA $\textbf{cascerangicteccotts} \textbf{cascerascects} \textbf{cascerascects} \textbf{cascerascect} \textbf{c$ S R S L P L P K R P R R G A A P E P E R T P V G Q G S W A H P G R T R G P S D R N D T P C P P V Y A S T K H P L Y S S G D K E Q L R P S F L L M R P L P L E L L G N H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R ${\tt can any vector reconstruction construction} {\tt can any vector reconstruction} {\tt can any vector reconst$ E R P Q G S V A A P E B B D T D P R R L 7 J L L R Q H S S P H Q V Y G F V R A C COTOCOCCOGOTOGOCCCCCAGGCCTCTGGGGCACAACGAACGCCCCCCTCCTCAGGAACCCAAGAAGTTCATCTCCCTGGGGAAGCATGCCAAGCTGTGCAGGAAGCT L R R L V P P G L W G S R H N B R R F L R N T K K P I S L G K H A K L S L Q E L TWKM SVRDCAWLRRSPG7GC7PAAEHRLREEILAKFLHW.L $cogeteccoeccax {\tt Total}{\tt Acatega}{\tt cotects}{\tt cote$ G L R P I V N N D Y V V G A R T F R R Z X R A Z R L T S R V K A L F S V L N Y B DALTEVIASIIKPQNTYCVRRYAV RAAHGHVRKAPRSHVSTLTDIQPYNRQFVAHLQETSPLRD TGCCGTCGTCATCGACCACGACGACCTCCCTGAATGAGGCCAGCAGGCCATCGACGTCTACGTCTACGTCTACGTCTACGTCCAGGGCAAGTCCTACGTCCAGTGCACACGCCGTGCGCATCAGGGCGAAGTCCTACGTCCAGTGCACACGCCGTGCGCATCAGGGCGAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAGTGCAATGAGGCCAAGTCCTACGTCCAAGTGCAATGAGGCCAAGTCCTACGTCCAAGTCCAAGTCCTACGTCCAAGTCCTACGTCCAAGTCCAAGTCCTACAAGTCCAAGTCCTACAAGTCAAGTCAAGT Q G I F Q G S I L S T L L C S L C Y G D M Z N K L F A G I R R D G L L R L V D TGATTTCTTGTTGGTGACACCTCACCTCACCGAAAACCTTCCTCAGGACCCTGGTCCCTGAGTATGGCTGGGTGGTGAACTTGCCGAAGACAGTGGTGAACTTCCCCL V T P H L T H A K T P L R T L V R G V P S Y G C V V N L R K T V V N P P CTATGCCCGGACCTCCATCAGAGCCAGTCTCACCTTCAACCGCGGCTTCAAGGCTGGAGGAACATCCGTCGCAAACTCTTTGGGGTCTTGGGGTCTTGCGAAGTGTCACAGCCTGTTTCTGGA Y A R T S I R A S L T F N R G F K A G R N M R R K L F G V L R L K C H S L F TTTGCAGGTGAACAGCCTCCAGACGGTGTSCACCAACATCTACAAGATCCTCCTGCTSCAGGCGTACAGGTTTCACGCATGTGTGCTSCAGCTCCCATTTCATCAGCAAGTTTGGAAGAA LQVNSLQTVCTNIYXILLLQAYRPHACVLQLPPHQQV CCGAAGAAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC EENILVVTPAVLGS GGGACAGCCAGAGATGGAGCCAGCCGCCAGACCGTCGGGTGTGGGCAGCTTTCCGGTGTGTCTCCTGGGAGGGGAGTTGGGCCTGGGCCTGGACTCCTCAGCCTCTGTTTTCCCCCCAG